

(No Model.)

J. C. MANNING & A. C. WILSON.
GRAPPLE.

No. 504,600.

Patented Sept. 5, 1893.

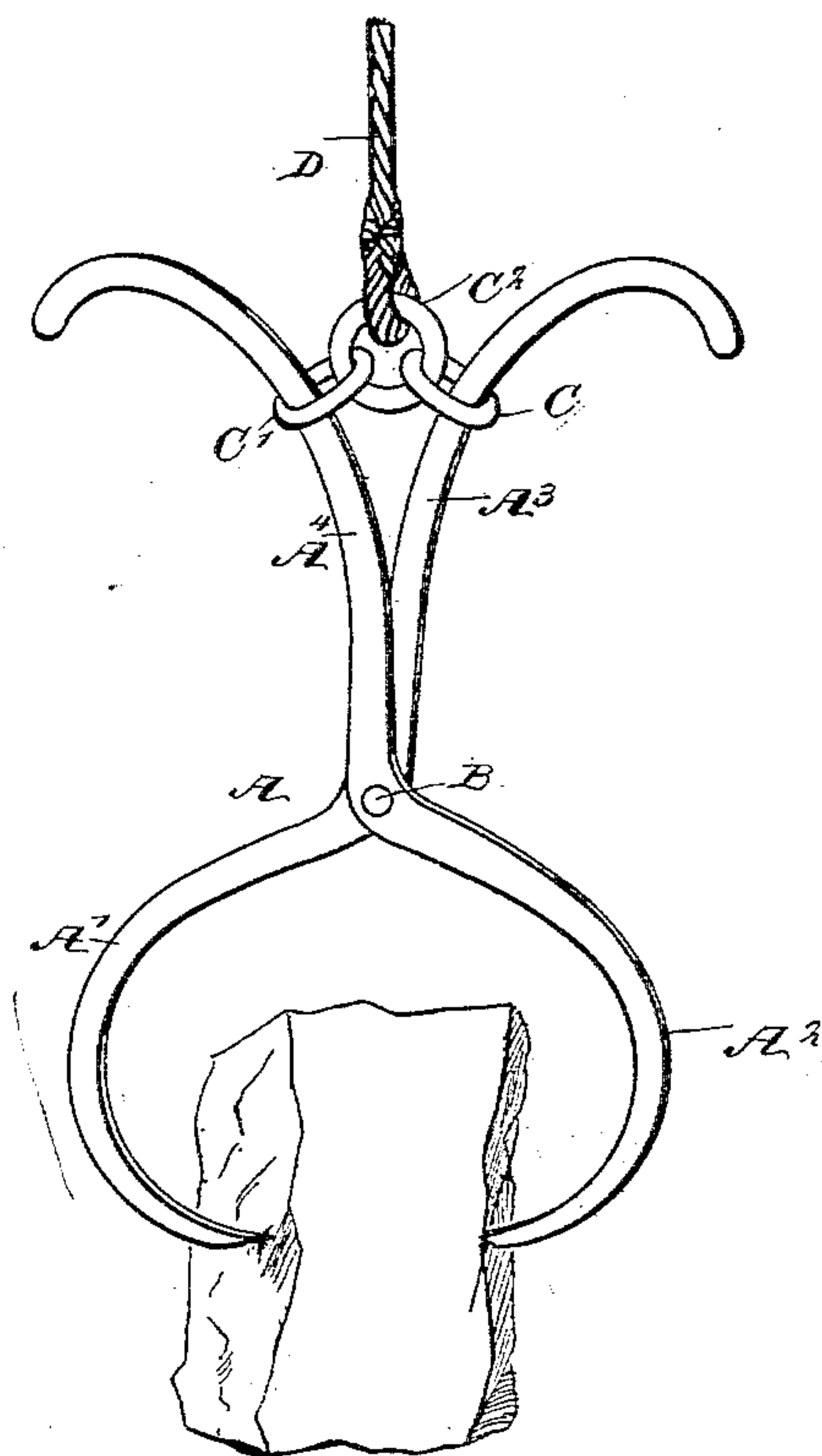


Fig. 1

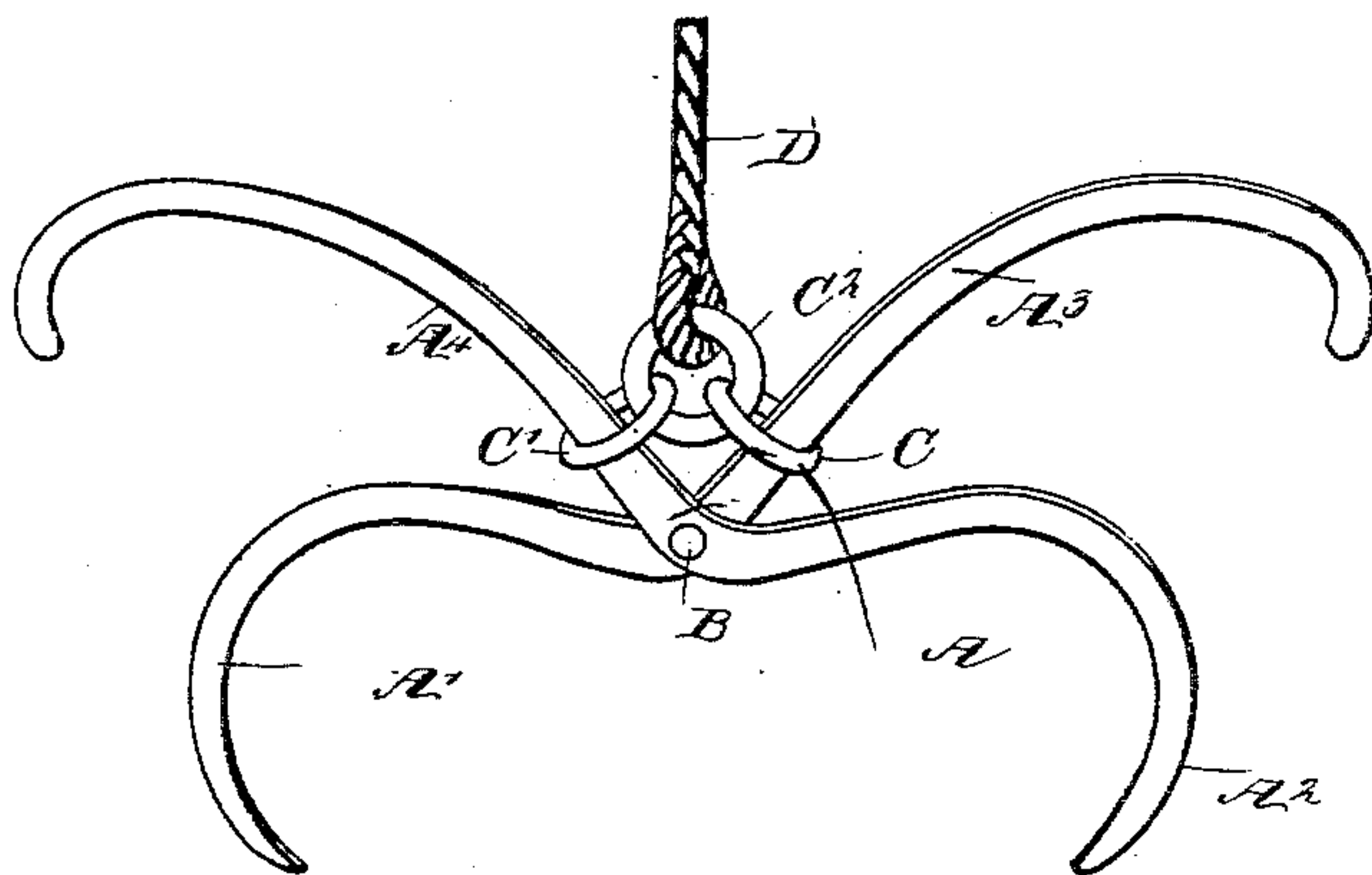


Fig. 2

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UNITED STATES PATENT OFFICE.

JOHN C. MANNING AND ALBERT C. WILSON, OF MARSHFIELD, OREGON.

GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 504,600, dated September 5, 1893.

Application filed June 1, 1893. Serial No. 476,284. (No model.)

To all whom it may concern:

Be it known that we, JOHN C. MANNING and ALBERT C. WILSON, both of Marshfield, in the county of Coos and State of Oregon, have invented a new and Improved Grapple, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved grapple, which is simple and durable in construction, and adapted to firmly grapple the article and hold the same while lifting it or moving it from one place to another.

The invention consists of a pair of tongs provided with upwardly and outwardly curved handles or arms, and connected links, of which the outermost engage the handles or arms and the middle one is attached to the hoisting rope.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 is a perspective view of the improvement as applied and in a closed position; and Fig. 2 is a like view of the same in an open position.

The improved grapple consists of a pair of tongs A, formed with curved hooks A' and A², pivotally connected with each other by a pivot B, from which the hooks continue in upwardly and outwardly extending handles or arms A³ and A⁴, engaged by the links C and C' respectively, connected with a link C² attached to the lower end of the hoisting rope D. The extreme upper ends of the arms or handles A³ and A⁴ are bent downwardly as plainly shown in the drawings to form stops for the outer links C and C' to prevent the latter from accidentally slipping off the arms when the tongs close. Now, it will be seen that when the connected links C, C' C² are in a lowermost position, as illustrated in Fig. 2, then the hooks A' and A² readily open to permit of grasping the article to be lifted or moved about. When the tongs are closed sufficiently to engage the article with their points, and a

pull is exerted by the rope D in an upward direction, then the connected links C, C' and C² are carried upward by the rope, the links C and C' sliding on the outwardly curved arms A³ and A⁴, so that the latter are drawn together, and a consequent inward movement of the hooks A' and A² takes place, to firmly grasp the article and hold the same. It will be seen that the heavier the article is, the more power is required for lifting it, and consequently more pull is exerted on the links C, C' and C², to draw the arms A³ and A⁴ toward each other with more force, whereby a like movement is given to the hooks A' and A² holding the article. It will further be seen that in releasing the article, the operator only needs to slacken the rope D, so that the connected links slide downward, to permit the tongs to open and thus release the article. It will also be seen that the device is extremely simple and durable in construction, can be readily moved about, and is always ready for use.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A grapple comprising a pair of tongs provided with upwardly and outwardly curved handles or arms and connected links, of which the outermost have a free sliding connection with the said handles or arms, and the middle one is attached to the hoisting rope, substantially as shown and described.

2. A grapple comprising a pair of tongs formed with the usual pivoted hooks having extension arms or handles extending upward and outward, the extreme outer ends of the said arms being bent downward to form stops, connected links having a free sliding connection with the said arms, and limited in their outward movement by the stops on the extreme ends of the arms and a hoisting rope carrying the said links, substantially as shown and described.

JOHN C. MANNING.
ALBERT C. WILSON.

Witnesses:

A. D. BORDER,
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